The Examination of the Educational Effects of Some Writing Activities in the light of Student Opinions

Meryem ÖZTURAN SAĞIRLI*

Abstract

The aim of this research is to discover and compare the effects of writing prompt and expository writing from an educational perspective in the light of student opinions. The study was conducted according to qualitative research approach and content analysis was conducted. Two activities which were prepared with respect to objectives of writing prompt and expository writing were applied to the research group consisting of 81 university students for ten weeks. As data collection technique, semi-structured interview technique was used. At the end of this process, 44 students who participated in research were interviewed for 15-20 minutes in accordance with semi-structured interview questions. Recorded data were transferred to computer through transcription and analyzed by Nvivo program. Results showed that the effects of writing prompt and expository writing on students are, to a large extent, similar. Students that performed writing activities claimed that with respect to cognitive domain, they understood concepts better because of writing activities, they could detect unknown points, and what they learned was more permanent; with respect to emotional domain, their interests towards lectures increased, they were more careful, they had higher motivation, and since they were able to study regularly, they could prepare exams better and thus their anxiety towards them decreased. One of the most important results of the study is that students think that writing activities contribute the attitudes and behaviors about teaching professions and by these activities, their abilities to express ideas and their language use skills improved.

Key Words

Writing Activities, Writing Prompt, Expository Writing, Learning.

* Correspondence: PhD Candidate, Meryem ÖZTURAN SAĞIRLI, Erzincan University, Faculty of Education, Department of Elementary Education, 24030 Erzincan/Turkey.

E-mail:msagirli2@gmail.com

Kuram ve Uygulamada Eğitim Bilimleri / Educational Sciences: Theory & Practice 10 (4) • Autumn 2010 • 2521-2530 Reflective thinking is an effective, consistent and carefully thinking that any thought or information and it aims to reach conclusions that support an effective information structure (Dewey, 1991). Teachers and students think about when they are doing actually something and reverse their work, in this way reflective thinking requires students be aware and active in learning process by questioning what they will learn for as well (Tok, 2008).

By the activities through which students can express their opinions, criticisms, and reactions, environments that can teach and improve reflective thinking would be established in the organization of learning-teaching activities. Although the main reflective thinking activities can be enumerated as learning writings, maps of concepts and mind, questioning, contractual learning and self-evaluation activities, one of the most appealed reflective thinking activities in this area, education, is learning writings (learning protocols). According to Berthold, Nückles and Renkl (2004), learning protocols are not only products of writers' cognitive and meta-cognitive activities, but also written explanations of their own learning process and learning results. In other words, learning writings are short, impromptu and informal writing tasks which enable students to think keywords and ideas provided in the course.

At the same time, learning writings also bring forth the thinking on the effects of writing. Writing from the perspective of education is not only used as an instrument to expose knowledge obtained from different and complex levels; it is used as a mean to perceive and construct new concepts, i.e. it can be used as a meaningful mean in a meaningful learning activity (Günel, Atilla, & Büyükkasap, 2009). As such, writing does not only help us organize information but also learn more about our thinking process. In the course of learning of a new subject, writing activities help students see new relations, discover new ideas and communicate much more with others (Abel & Abel, 1988). During writing, students can organize their knowledge in a new way, and, at the same time, organize them again. By means of writing, knowledge operates actively and its transference occurs. By the positive effects of writing, on the one hand, students' conceptual knowledge extends, on the other hand, they develop attitudes of a writer on the way of scientific writing and they gain the ability to establish cause-effect relations which is required for such writings (Hand & Prain, 2001). To sum up, learning writings are materials in which students inscribe their personal reactions, problems,

emotions, changing opinions and ideas, learning processes and information about their contents (Ünver, 2007).

Writing ability takes its place among other learning types – enactive learning, iconic learning and representational or symbolic learning – which were explained by Bruner (Emig, 1977). As he argued, while in first type hands are dominant, eyes and brain are dominant in second and third one, respectively. Although we are not able to reach directly to passive information stored in the long-term memory, by translating our ideas in the writing process we can render them accessible, available and active (Galbraith, 1992). Moreover, blanks and inconsistencies in knowledge coexist with meta-cognitive activities, can be easily discovered by students – reflective writing – (Berthold et al., 2004).

According to Bereiter and Scardamalia (1987), a successful writing arises as a result of dialectical movement of student between two problematic situations: First one is the content situation in which student elaborates on the question "What do I understand?" and the second situation is about writing in which student elaborates on the question "How can I express what I understood?" Student's effort to fulfill requirements of both content and writing is vitally important for learning, because this movement will involve the change and transformation of available knowledge or the reorganization of this knowledge to become more beneficial.

To give way to a meaningful learning for students, writing tasks have to include conceptual organization and assignments which facilitate restructuring and promote to meta-cognitive activities (Holliday, Yore, & Alverman, 1994). According to Hand, Prain, Lawrence and Yora (1999), writing has to serve students to facilitate the research of alternative information and to discover new possibilities from available ideas; to unite foreknowledge with new concepts and to integrate different concepts with each other; to understand and think these concepts and to evaluate claims about them.

One of the important issues, in order to writing ends up with effective learning and writing activities become learning writings, is the determination of appropriate writing type. While deciding on the type of writing activity, educators have to consider the activities which invoke deep conceptual meanings rather than one-to-one dictation of learned information in the class, and which are more appropriate for the content,

purposes and conceptual structure of the subject (Hand & Prain, 2001).

Although they are grouped separately according to their purposes, forms, and differences, from time to time, writing types can be grouped in the same categories or be placed subcategories of another. One of writing types used in this study is expository writing and another one is writing prompt. While expository writing is a type that aspires to identification and explanation (Shield & Galbraith, 1998), writing prompt is an activity which, generally, provides important information for students to understand and which can be applied all subjects without much time (Seto & Meel, 2006; Forte & Schurr, 2001). Bell and Bell (1985) found that expository writing is an effective and practical instrument for problem solving teaching. Formally, writing prompts are structures consist of few sentences which aim at a primer and directive effect on students to write about a definite subject (Uğurel, Tekin, Yavuz, & Keçeli, 2009).

Studies on writing activities are, generally, experimental research or collections which tend to focus on the effects of the application of intentionally selected writing activity, about a course or subject in a definite period, on the success, anxiety, and attitudes of students (Günel, Atilla et al, 2009; Günel, Uzoğlu et al., 2009; Idris, 2009; Miller, 1991; Reaves, Flowers, & Jevell, 1993; Reilly, 2007; Rodgers, 1997; Uğurel, Tekin et al., 2009). When these studies in the literature considered, it is rare to encounter with studies which discuss the meaning of writing activities for students and their ideas on these activities as a learning instrument. It is intended in this study to take a step further to fill this gap.

Aim of Study

The aim of this study is to discover and compare the effects of expository writing and writing prompt in the light of university student opinions.

Method

This study was conducted according to qualitative research approach; case study method was used (Mcmillan & Schumacher, 2006) and content analysis was made. The aim of such an analysis is to present collected data to readers in an organized and interpreted form (Yıldırım & Şimşek, 2004).

Research Group

Sampling was determined in terms of cluster sampling that is one of the probabilistic sampling methods (Yıldırım & Şimşek, 2004), which is a type of sampling method that groups randomly selected, not person (Altunışık, Coşkun, Bayraktaroğlu, & Yıldırım, 2007). A writing prompt activity was administrated to one group and the expository writing activity was administrated to the other group, respectively.

Sampling consisted of 81 freshmen student teachers from a university, which is founded in the Eastern Anatolia, at the department of mathematics education including two classes at the Faculty of Education in the spring semester of 2008-2009 academic year. 41 freshmen were attended to the one of the classrooms and the other subjects were attended to the other classroom. The age ranges of subject are between 18-20 years. The treatment was applied to both the classes by the researcher during ten weeks. After the treatment, semi-structured interviews were carried out the subjects including 44 students, which is each the second student being selected according to systematic sampling method.

Data Collection

In this study, semi-structured interview technique was used as data collection technique. The purpose of semi-structured interview is to detect parallelisms and differences between opinions of participants and compare them (Brannigan, 1985).

Five questions included in this study were prepared according to questions students asked about forms, processes and feedbacks of activities through semester, their problems, literature review and purpose of research. To provide content validity, questions were examined by three experts of the field, and necessary corrections and changes were made. Moreover, pilot research of semi-structured interview was applied to three students to decide how and in what order questions will be asked. Because the questions of semi-structured interview were mentioned in the findings section, they are not presented again in this section.

Among the applicant students, those who studied in class 1-A were given Activity I, and those who study in 1-B were given Activity 2. During this process, students' letters and notebooks were collected four times, examined as to see whether they are appropriate for the purpose

of the study, and necessary feedbacks were given in written form in their letters and notebooks. At the end of this process, 44 students were interviewed in accordance with the semi-structured interview questions for 15-20 minutes by researcher. By the permission of students, interviews were recorded by record tape.

Treatment

Activities are presented which were given to research group as learning activities for reflective learning as below. Activity 1 has the kind of expository writing; Activity 2 is a kind of writing prompt. The selection of these writing activities was decided by taking into account of their definitions, purposes and applications.

Activity 1 (Letter Activity = A1): One of your closest friends would not attend courses because of an accident. Your task is to depict to your friend the Educational Psychology course you have taken, in best way. For this reason, without delays, you will send every week one letter to your friend. While writing a letter, the important point is to lose as less information as you can. To ensure that, you have to mention everything (how this course is taught, content, how you learn, your emotions and ideas) about learning process.

Activity 2 (Notebook Activity = A2): You want to benefit in the best way from the Educational Psychology course you take in the first grade and you plan to write down a notebook for the Public Personnel Selection Exam you will take in the fourth grade. The purpose of this notebook is to remind you the issues as soon as possible, and inform how you learn, where you lack, about which subject you are better, your emotions and ideas.

Data Analysis

Data collected by the semi-structured interview were transcribed and transferred to computer environment in the form of separate word files. After several readings of Activity 1 and Activity 2, taking account of literature and findings, transcripts were evaluated separately. By the help of the Nvivo program common titles were established, and as a result, data was analyzed. To decide on the consistency level of the codes of researcher, quotations under each code were examined one by one by three scientists, and interview codes were given their last form.

Conclusion and Discussion

The main purpose of this study is to discover the effects of expository writing and writing prompt in the light of student opinions. Results show that the effects of both expository writing and writing prompt on students are similar.

Students displayed positive reactions towards writing activities. Students' opinions can be grouped under two headings, namely cognitive domain and emotional domain. Students who performed both writing activities claimed that with respect to cognitive domain, they understood concepts better because of writing activities, they could detect unknown points, and what they learned was more permanent; with respect to emotional domain, their interests towards lectures increased, they were more careful, they had higher motivation, and since they were able to study regularly, they could prepare exams better and thus their anxiety towards them decreased. Students expressed that, by writing activities, they learned much better and loved the course more. The majority of the results reflect similarities with literature. Idris (2009), in his study on expository writing activities, states that experimental group on which writing activities were applied was much more successful than the control group. Moreover, 79% of percent of students enjoyed their courses more because of the expository writing activities and by the same token, they understood issues better, were other important results of the study. Again, in another research conducted by Ishii (2003), researchers who used writing activities first time, observed an increase in the motivation, learning and understanding of students because of these activities.

In the letter activity, it was observed that students do not only share with their friends the content of the course, but also other issues in their lives. From this perspective, it is possible to say that expository writing has a therapeutic effect on students. Borasi and Rose (1989) reached the same conclusion in their study on daily writing activities.

Certainly, one of the most important results of this study is that 40 students out of 44 stated that writing activities would contribute their professions as teachers. Duygu, performed A1, said, "Yes, I think so. Because, although there is a symbolic, imaginary pen friend, telling something to him/her gives the feeling of being a teacher and this makes me happy. In the end, I believe that the ability of teaching develops" and another one, performed A2, said, "Since we are going to tell others what we listened, I pay great at-

tention to the course. I try not to miss the smallest details. I listen better and learn better. I try to develop myself about the issue. I utilize other sources, and while writing all these to notebook, I feel like a teacher and there is a student in front of me," these are fine examples which explain the results. Another important result related with the second quotation is that the effort to explain the issue to him/herself or others, directs students to other sources and further investigations. Being aware of what, why, and how they know and their work indicates, at the same time, the improvement of the students' self-organization. This result reflects parallelism with the study of Nucles, Hübner and Renkl (2008).

Another result of the study is the advance of the students' skills to express their ideas and of language-use, by the writing activities. Although they know the subject, some students have problems with expressing themselves. Yasemin, performed A1, said, "This activity was important for us. Since many of us experience difficulties while explaining something to others. We know the answer but have difficulties to express it. By the writing activities, we experience instances in which we can express better to others what we know"; this is an important proof of this idea. The applicant students claimed that, by the writing activities, they developed their language-use skills and gained the ability to express language of mathematics with their own. Idris (2009) also reached the conclusion that writing activities help students to think on their own and to focus language use.

Apart from these positive effects which resulted from expository writing and writing prompt, there are some negative results for few students. Students complain about the difficulty of continuing writing activities, especially, during the exam periods, and sometimes about the oppressiveness of regular writing. Davison & Pearce (1990) found in their research that students don't like writing activities every day.

As a learning instrument or instrument that helps to learning, writing activities can be used to create environments that improve reflective thinking in all levels of education. Moreover, regular checking of these activities provides important possibilities for instructors to observe students' information lacks conceptual mistakes and developments. As such, in addition to opportunities they provide to students, writing activities will become feedbacks for instructors. By taking into account, for future researches, the effects of writing activities on the cognition and meta-cognition, the examination of relation between the use of these activities and students' abilities of self-organization will provide a fresh breath for researches on writing and self-organization.

References/Kaynakça

Abel, I. P., & Abel, F. J. (1988). Writing in the mathematics classroom. *Clearing House*, 62(4), 155-58.

Altunışık, R., Coşkun, R., Bayraktaroğlu, S. ve Yıldırım, E. (2007). Sosyal Bilimlerde Araştırma Yöntemleri SPSS Uygulamalı (5. bs). Sakarya: Sakarya Yayıncılık.

Bell, E. S., & Bell, R. N. (1985). Writing and mathematical problem solving: arguments in favour of synthesis. *School Science and Mathematics*, 85 (3), 210-221.

Bereiter, C., & Scardamalia, M. (1987). The psychology of written composition. Hillsdale, Nj: Erlbaum.

Berthold, K., Nückles, M., & Renkl, A. (2004). Writing learning protocols: Prompts foster cognitive and metacognitive as weel as learning outcome. In P. Gerjets, J. Elen, R. Joiner & P. Kirschner (Eds.), *Instructional design for effective and enjoyable computer-supported learning* (pp. 193-200). Tübingen: Knowledge Media Research Center.

Borasi, R., & Rose, B. (1989). Journal writing and mathematics instruction. *Educational Studies in Mathematics*, 20(4), 327-365.

Brannigan, G. G. (1985). *The research interview*. In A. Tolor, (Ed.), A Efective interviewing (pp. 196-205). Springfield IL: Charles C. Thomas Pub.

Davison, D., & Pearce, D. (1990). Perspectives on writing activities in the mathematics classroom. *Mathematics Education Research Journal*, 2 (1), 15-22.

Dewey, J. (1991). How we think. New York: Prometheus Books.

Emig, J. (1977). Writing as a mode of learning. College Composition and Communication, 28(2), 122-28.

Forte, I., & Schurr, S. (2001). Standards-based math graphic organizers, rubrics, & writings prompts for middle grade students. Nashville- Tennessee: Incentive Publications.

Galbraith, D. (1992). Conditions for discovery through writing. *Instructional Science*, 21, 45-47.

Günel, M., Atilla, M. E. ve Büyükkasap, E. (2009). Farklı betimleme modlarının öğrenme amaçlı yazma aktivitelerinde kullanımlarının 6. sınıf yaşamımızdaki elektrik ünitesinin öğrenimine etkisi. İlköğretim Online, 8(1), 183-198.

Günel, M., Uzoğlu, M. ve Büyükkasap, E. (2009). Öğrenme amaçlı yazma aktivitelerinin kullanımının ilköğretim seviyesinde kuvvet konusunu öğrenmeye etkisi. *Gazi Eğitim Fakültesi Dergisi*, 29(1), 379-399.

Hand, B., & Prain, V. (2001). Teachers implementing writing-to-learn strategies in juniar secondary Science: A case Ssudy. *Science Education*, 86, 737-755.

Hand, B., Prain, V., Lawrence, C., & Yore, L. D. (1999). A writing in science framework designed to enhance science literacy. *International Journal of Science and Education*, 10, 1021-1035.

Holliday, W. G., Yore, L. D., & Alverman, D. E. (1994). The reading-science learning-writing connection: Breakthours, barriers and promises. *Journal of Research in Science Teaching*, 31, 877-894.

Idris, N. (2009). Enhancing students' understanding in calculus trough writing. *International Electronic Journal of Mathematics Education*, 4(1), 36-55.

Ishii, D. K. (2003). First-time teacher-researcher use writing in middle school mathematics instruction. *The Mathematics Educator*, 13(2), 38-46.

Mcmillan, J. H., & Schumacher, S. (2006). Research in education. Evidence-based inquiry (6th ed). Boston: Pearson.

Miller, L. D. (1991). Constructing pedagogical content knowledge from students' writing in secondary mathematics. *Mathematics Education Research Journal*, 3(1), 30-44.

Nucleus, M., Hübner, S., & Renkl, A. (2008). Enhancing self- regulated learning by writing learning protocols. *Learning and Instruction*, 19 (3), 259-271.

Reaves, R. R., Flowers, J. L., & Jewell, L. R. (1993). Effects of writing-to-learn activities on the content knowledge, retention, and attitudes of secondary vocational agriculture students. *Journal of Agriculture Education*, 34(3), 34-40.

Reilly, E. M. (2007). Writing to learn mathematics: A mixed method study. Unpublished doctoral dissertation, Indiana University of Pennsylvania.

Rodgers, W. L. (1997). The effects of writing to learn on performance and attitude towards mathematics. *Dissertion Abstarcts International*, 57 (8), 3435A, UMI No. 9701857.

Seto, B., & Meel, D.E. (2006). Writing in mathematics: Making it work. *Primus*, 16 (3), 204-232.

Shield, M., & Galbraith, P. (1998). The analyses of student expository writing in mathematics. *Educational Studies in Mathematics*, 36, 29-52.

Tok, Ş. (2008). The effects of reflective thinking activities in science course on academic achievements and attitudes toward science. İlköğretim Online, 7(3), 557-568.

Uğurel, I., Tekin, Ç. ve Moralı, S. (2009). Matematik eğitimi üzerinden "yazma aktiviteleri" üzerine genel bir bakış. *e- Journal of New World Sciences Academy*, 4(2), 494-507.

Uğurel, I., Tekin, Ç., Yavuz, S. ve Keçeli, S. (2009). Matematiğe yönelik tutumun belirlenmesinde alternatif bir araç: Teşvik edici yazma aktivitesi (TEYA). *Bilim, Eğitim ve Düşünce Dergisi*, 9(1), 1-13.

Ünver, G. (2007). Yansıtıcı düşünme. Ö. Demirel (Ed.), *Eğitimde yeni yönelimler* içinde (s. 137-148). Ankara: Pegema.

Yıldırım, A. ve Şimşek, H. (2006). Sosyal bilimlerde nitel araştırma yöntemleri (6. bs). Ankara: Seçkin Yayıncılık.